

ING2: AAAGCGTTCTCGGCGGCAGCGCAACAACCTAGAACCGTGAGAACGCGTCCAGCAACCGCGACCCACGACGACGTCA 75
 ING1 (D): C.....C..A.....G.....A.....G.G
 ING2: CCTCGGGCACGCCCAAGGAGAAGAAAGCCAGACCTCTAAGAAGAAGCAGGGCTCCATGGCCAAGGCGTAGCGGC 150
 ING1 (D):A.....G..A.....C.....A..C.....A.....G...AG
 ING2: AGGCGTCCCCCGCAGACCTCCCCATCGACCCAGCGAGCCCTCCTACTGG-----G 201
 ING1 (D):T..C.....A...A...A.G....TCTGTGCAACCAGGTCTCCTATGGG.
 ING2: AGATGATCCGCTGCGACAACGAA---TGCCCATCGAGTGGTTCCGCTTCTCGTGTGTGAGTCTCAACCATAAAC 273
 ING1 (D):G.....CGAG.....A.....C...G.G....T.....
 ING2: CAAAGCGCAAGTGGTACTGTTCAGATGCCGGGGAAGAACGA-----TGGGCAAAGCCCTTGAGAAGTCCA 340
 ING1 (D): .C...G.....C...AG.....GG.....GAAGACCA...A.....GGA...A...
 ING2: GAAAAAAACAGGGCTTATAACAGTAGTTTGGGGACATGCGTCTAATAGTGAGGAGAACAAATAAGCCAGTGT 415
 ING1 (D): ---...G.G.....C.....T....G...C..GG.-.....C.....A.....
 ING2: GTTGATTACATTGCCACCTTTGCTGAGGTGAGGAGTGTAAATGTATATTTTAAAGAATGTTGTTAGAGGCC 490
 ING1 (D): A..T.....TG.....T.....A.G.....AGA.A...AA
 ING2: GGGCGCGGTGGCTCAGCCTGTATCCAGCACTTTGGGAGGCCGAGGCGGTGCGATCAGAGGTCAGGAGATCG 565
 ING1 (D): CCATT..CT..TCA..AGG..A...GC..GTGATT..TG....CCTTTTGTTTT..AT.G.T...T.TAACAAGA..AGT
 ING2: AGACCATCCTGGCTAACACGCTGAACCCCGTCTCTACTAAAAATTCAAAAAAAAAATTAGCTGGGCGTGGTGGC 640
 ING1 (D): G.T..TG..GGATCAGC..TTTAA....TA..AAA..A..GGTTG....C.CTT..G.CTCAGACTGA..TTCTTG
 ING2: GGGCGCCTGTAGTCCCAGCTATTGGGAGGCTGAGGCAGGAGAATGGCNTGAACCTGGGAGGTGGAGCTTGCANT 715
 ING1 (D): C..GAGGAGGG..GA..T..AACTCA..CCT..ACACATTAA..TGT..G..A..AAAAT..TTTCATTA..CTTTT..ATTTTA
 ING2: GAGCCAAGGTCGCGCCACTGCACTCCAGCCTGGGCGACAGAGCGAGACTCCATCTTA 772
 ING1 (D): ATA-....TAATATTATTACTTTATG..A..AATTTTTTTA..TT..GCCA..GTCG..CA..

ING2 = SEQ ID NO: 8
 ING1(D) = SEQ ID NO: 2 (part)

590516450

SEQ ID NO: 15

CTCGTGCCGTTAAAGATGGTCTTCTGAAGGCTAACTGCGGAATGAAAAGTTTCTATTCCAACCTAAAGCC
TTAGAATTGATGGACATGCAAACCTTTCAAAGCAGAGCCTCCCGAGAAGCCATCTGCCTTCGAGCCTGC
CATTGAAATGCAAAGTCTGTTCCAAATAAAGCCTTGAATTGAAGAATGAACAAACATTGAGAGCAG
ATGAGATACTCCCATCAGAATCCAAACAAAAGGACTATGAAGAAAGTTCTTGGGATTCTGAGAGTCTC
TGTGAGACTGTTTCACAGAAGGATGTGTGTTTACCCAAGGCTACACATCAAAAAGAAATAGATAAAAT
AAATGGAAAATTAGAAGAGTCTCCTGATAATGATGGTTTTCTGAAGGCTCCCTGCAGAATGAAAGTTT
CTATTCCAACCTAAAGCCTTAGAATTGATGGACATGCAAACCTTTCAAAGCAGAGCCTCCCGAGAAGCCA
TCTGCCTTCGAGCCTGCCATTGAAATGCAAAGTCTGTTCCAAATAAAGCCTTGAATTGAAGAATGA
ACAAACATTGAGAGCAGATCAGATGTTCCCTTCAGAATCAAAACAAAAGAAGGTTGAAGAAAATTCTT
GGGATTCTGAGAGTCTCCGTGAGACTGTTTCACAGAAGGATGTGTGTGTACCCAAGGCTACACATCAA
AAAGAAATGATAAAATAAGTGGAAAATTAGAAGATTCAACTAGCCTATCAAAAATCTTGGATACAGT
TCATTCTTGTGAAAGAGCAAGGGAACCTTCAAAAAGATCACTGTGAACAACGTACAGGAAAAATGGAAC
AAATGAAAAAGAAGTTTTGTGTACTGAAAAAGAACTGTCAGAAGCAAAAAGAAATAAAATCACAGTTA
GAGAACCACAAAAGTTAAATGGGAACAAGAGCTCTGCAGTGTGAGATTGACTTTAAACCAAGAAGAAGA
GAAGAGAAGAAATGCCGATATATTAATGAAAAAATTAGGGAAGAATTAGGAAGAATCGAAGAGCAGC
ATAGGAAAGAGTTAGAAGTGAACAACAACTTGAACAGGCTCTCAGAATACAAGATATAGAATTGAAG
AGTGTAGAAAGTAATTTGAATCAGGTTTCTCACACTCATGAAAATGAAAATTATCTCTTACATGAAAA
TTGCATGTTGAAAAAGGAAATTGCCATGCTAAAACCTGGAAATAGCCACACTGAAACACCAATACCAGG
AAAAGGAAAATAAATACTTTGAGGACATTAAGATTTTAAAAGAAAAGAATGCTGAACTTCAGATGACC
CTAAAACCTGAAAGAGGAATCATTAACTAAAAGGGCATCTCAATATAGTGGGCAGCTTAAAGTTCTGAT
AGCTGAGAACACAATGCTCACTTCTAAATTGAAGGAAAAACAAGACAAAAGAAATACTAGAGGCAGAAA
TTGAATCACACCATCCTAGACTGGCTTCTGCTGTACAAGACCATGATCAAATTGTGACATCAAGAAAA
AGTCAAGAACCTGCTTTCCACATTGCAGCAGATGCTTGTGTTGCAAAGAAAAATGAATGTTGATGTGAG
TAGTACCGATATATTAACAATGAGGTGCTCCATCAACCACTTTCTGAAGCTCAAAGGAAATCCANAAGC
CTAAAAATTAATCTCAATTATGCAGGAGATGCTCTAAGAGAAAATACATTGGTTTCAGGAACATGCAC
AAAGAGACCAACGTGAAACACAGTGTCAAATGAAGGAAGCTGAACACATGTNTCAAANCGAACAAGAT
NATGTGAACAAACACACTGANACAGCAGGAGTCTCTAGATCAGAAATTATTTCAACTACAAAGCAAAAA
TATGTGGCTTCAACAGCAATTAGTTCATGCACATAANGAAAGCTGACAACAAAAGCAAGATAACAATT
GATNTTCATTNTCTTGAGAGGAAAATGCNCATCATCTTCTAAAAGAGAAAAATGAGGAGATATTTNAT
TACNATAACCATTTAAAAAACCCGTATATTTCAATATGGAAAAAAAANAAAAAAA

SEQ ID NO: 16

MKVSIPTKALELMDMQTFKAEPPEKPSAFEPAIEMQKSVPNKALELKNEQTLRADEILPSESKQKDYE
ESSWDSESLCETVSQKDVCLPKATHQKEIDKINGKLEESPDNDGFLKAPCRMKVSIPTKALELMDMQT
FKAEPPEKPSAFEPAIEMQKSVPNKALELKNEQTLRADQMFPSQKQKKVEENSWDSESLRETVSQKD
VCVPKATHQKEMDKISGKLEDSTSLSKILDTVHSCERARELQKDHCERTGKMEQMKKKFCVLKKKLS
EAKEIKSQLENQKVKEQELCSVRLTLNQEEKRRNADILNEKIREELGRIEEQHRKELEVKQOLEQA
LRIQDIELKSVESNLNQVSHTHENENYLLHENCMLKKEIAMLKLEIATLKHQYQEKENKYFEDIKILK
EKNAELQMTLKLKEESLTKRASQYSGQLKVLIAENTMLTSKLKEKQDKEILEAEIESHHPRLASAVQD
HDQIVTSRKSQEPAFHIAGDAQLQKMNVDVSSTDI.

03416303

6506160450

SEQ ID NO: 2

GAGTAACCCGATAATATGCCGTTGTGCACGGCGACGAGAATTCAGATATAGCAGTAGCAGTGATCCCGGGCCT
GTGGCTCGGGGCGGGGCTGCAGTTTCGGACCGCCTCCCGCGACCCGCGGGGCGGGCTCGGAGACAGTTTCAGGCC
GCATCTTTGCTGACCCGAGGGTGGGGCCGCGCGTGGCCGTGGAAACAGATCCTGAAGGAGCTAGACGAGTGCTAC
GAGCGCTTCAGTCGCGAGACAGACGGGGCGCAGAAGCGGCGGATGCTGCACTGTGTGCAGCGCGCGCTGATCCGC
AGCCAGGAGCTGGGCGAGAGAAGATCCAGATCGTGAGCCAGATGGTGGAGCTGGTGGAGAACCACGCGGCAAGGTTGGC
GTGGACAGCCACGTGGAGCTGTTCGAGGCGCAGCAGGAGCTGGGCGACACAGTGGGCAACAGCGGCAAGGTTGGC
GCGGACAGGCCAATGGCGATGCGGTAGCGCAGTCTGACAAGCCCAACAGCAAGCGCTCACGGCGGCAGCGCAAC
AACGAGAACCCTGAGAACGCTCCAGCAACCACGACCACGACGCGCGCCTCGGGCACACCCAAGGAGAAGAAG
GCCAAGACCTCCAAGAAGAAGGAGCGCTCCAAGGCCAAGCGGAGCGAGAGGCGTCCCCTGCCGACCTCCCCATC
GACCCCAACGAACCCACGTACTGTCTGTGCAACCAGGTCTCCTATGGGGAGATGATCGGCTGCGACAACGACGAG
TGCCCCATCGAGTGGTTCCACTCTCTCGTGCGTGGGGCTCAATCATAAACCCAAGGGCAAGTGGTACTGTCCCAAG
TGCCGGGGGGGAGAACGAGAAGACCATGGACAAAGCCCTGGAGAAATCCAAAAAGAGAGGGCTTACAACAGGTAG
TTTGTGGACAGGCGCCTGGTGTGAGGAGGACAAATAAACCCTGTATTTATTACATTGCTGCCTTTGTTGAGGTG
CAAGGAGTGTAATAATGTATATTTTTAAAGAATGTTAGAAAAGGAACCATTCCTTTTCATAGGGATGGCAGTGATTC
TGTTTGCCTTTTGTTCATTGGTACAGCTGTAACAAGAAAGTGGTCTGTGGATCAGCATTTTAGAAAACACAAA
TATAGGTTTGATTCAACACTTAAGTCTCAGACTGATTTCTTGCGGGAGGAGGGGGACTAAACTCACCCTAACACA
TTAAATGTGGAAGGAAAATATTTTATTAGCTTTTTTATTTTAATACAAGTAATATTATTACTTTATGAACAATTT
TTTTTAATTGGCCATGTGCGCCAAAAATACAGCCTATAGTAAATGTGTTTCTTGCTGCCATGATGTATATCCATAT
AACAAATTCAGTAACAAAGGTTTAAAGTTTGAAGATTATTTTTTAAAAAGGTAAAAGGTTAAATTTTACATGACAG
ATATTTTATCTATTGGCCTGTTCGCCAATGGCCATTTAAAAATGCTTGCTACACTTCTCTTAAGTGGTCTAGT
CAAGGAACCTCAAGTCATGCTTTTGCTATACCAATCATAGTGTAACCATCTTTAATTTATATCAGGTGTATAAA
TGTAATTTTCCAAATGAAGTGTGCTTCCCTGTGTATGTGAGCTGTAAAAATGTTACGTGAAGAAATAAATGAAAC
TCACAATTATGTGCAAAGGTGTGCTTCCCTGTGTATGTGAGCTGTAAAAATGTTACGTGAAGAAATAAATGAAAC
TTGGCCAGTTTGTTCCTCTAGTAGTATATTTAATTTTGACATAAGTAACTTTTAAAAATTTGTCTTAAAAATTTAT
ACACCAGCAATTTAGACAAAGCCTTAAGCAATTTTGTATTATTGTTCTCACTTATTATTAATAATGAAGTAGAA
GTACTTAATTGCCAGCAATAAATACGTGTCAAAAAAGAAATCTGTATTACAGACCCCTGGGGTCAGGAAATTACT
GCCCCACTTGTCAGTTTCAGCCACCATCTGTTTGAACATTATATGAAGTTTAAATTCTAGTGTCCATAAATAAA
GTTTCAGCGGCACCCCAAAAAAAAAAAAAAAAAAAAAA

gi|2183221|gb|AAB60879.1| p33ING1 (SEQ ID NO: 17)
MPLCTATRIPRYSSSDPGPVARGRGCSDDLPRPAGRRRQFOAASLLTRGWGRAWPWKQILKELDECY
ERESRETDAQKRMLHCVQALIRSQELGDEKIQIVSQMVELVENRTRQVDHVELFEAQQELGDTVGN
SGKVGADRPNGDAVAQSDKPNKRSRQRNNENRENASSNHDHDDGASGTPKEKKAKTSKKKKRSKAKAE
REASPADLPIDPNEPTYCLCNQVSYGEMIGCDNDECPIEFHFSCVGLNHHKPKGKWYCPKCRGENEKTMD
KALEKSKKERAYNR

D:	MPLCTATRI PRYSS	15
A:	MLSPANGELHLVNYVEDYLDSESLPFDLQNVSLMREIDAKYQEILKELDECYERFSRET DGAQKRRMLHCVQ	75
B:	MLHCVQ	6
C:	MEILKELDECYERFSRET DGAQKRRMLHCVQ	31
D:	SDPGPVARGRGCSDDLPRPAGPARRQFQAASLLTRGWRAWPWKQILKELDECYERFSRET DGAQKRRMLHCVQ	90
A:	RALIRSQELGDEKIQIVSQMVLENRTQVDSHVELFEAQQELGDTVGN SGKV GADRPNG DAVAQSDKPN SKRS	150
B:	RALIRSQELGDEKIQIVSQMVLENRTQVDSHVELFEAQQELGDTVGN SGKV GADRPNG DAVAQSDKPN SKRS	156
C:	RALIRSQELGDEKIQIVSQMVLENRTQVDSHVELFEAQQELGDTVGN SGKV GADRPNG DAVAQSDKPN SKRS	106
D:	RALIRSQELGDEKIQIVSQMVLENRTQVDSHVELFEAQQELGDTVGN SGKV GADRPNG DAVAQSDKPN SKRS	165
A:	RRQRNNENRENASSNHDHDDGASGTPKEKKAKTSKKKKRSKAKAEREASPADLPIDPNEPTYCLCNQVSYGEMIG	225
B:	RRQRNNENRENASSNHDHDDGASGTPKEKKAKTSKKKKRSKAKAEREASPADLPIDPNEPTYCLCNQVSYGEMIG	231
C:	RRQRNNENRENASSNHDHDDGASGTPKEKKAKTSKKKKRSKAKAEREASPADLPIDPNEPTYCLCNQVSYGEMIG	161
D:	RRQRNNENRENASSNHDHDDGASGTPKEKKAKTSKKKKRSKAKAEREASPADLPIDPNEPTYCLCNQVSYGEMIG	240
A:	CDNDECPIEFHFSCVGLNHKPKGKWYCPKCRGENEKTMDKALEKSKKERAYNR.	279
B:	CDNDECPIEFHFSCVGLNHKPKGKWYCPKCRGENEKTMDKALEKSKKERAYNR.	210
C:	CDNDECPIEFHFSCVGLNHKPKGKWYCPKCRGENEKTMDKALEKSKKERAYNR.	235
D:	CDNDECPIEFHFSCVGLNHKPKGKWYCPKCRGENEKTMDKALEKSKKERAYNR.	294

A = SEQ ID NO. 5
 B = SEQ ID NO. 6
 C = SEQ ID NO. 7
 D = SEQ ID NO. 17

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